REMARKS

The present Amendment amends claims 1, 9 and 13 and leaves claims 2-8, 10-12 and 14-20 unchanged. Therefore, the present application has pending claims 1-20.

Applicants acknowledge the Examiner's indication in paragraph 13 of the Office Action that claims 5 and 13 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Amendments were made to claims 5 and 13 to place them in independent form including all the limitations of the base claim and any intervening claims. Therefore, claims 5 and 13 are allowable as indicated by the Examiner.

Claims 1, 3, 9 and 11 stand rejected under 35 USC §102(b) as being anticipated by Walker (article entitled "The LOCUS Distributed Operating System"); claims 2, 6, 10, 14 and 17-20 stand rejected under 35 USC §103(a) as being unpatentable over Walker in view of Fanning (U.S. Patent No. 6,366,907); claims 4 and 12 stand rejected under 35 USC §103(a) as being unpatentable over Walker and further in view of Needham (U.S. Patent Application Publication No. 2002/0188735); claims 7 and 15 stand rejected under 35 USC §103(a) as being unpatentable over Walker and further in view of Yang (article entitled "Comparing Hybrid Peer-to-peer Systems"); and claims 8 and 16 stand rejected under 35 USC §103(a) as being unpatentable over Walker further in view of Rabinovich (article entitled "Not all hits are created equal: Cooperative proxy caching over a wide-area network"). These rejections are traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited

16

in 1-4, 6-12 and 14-20 are not taught or suggested by Walker, Fanning, Needham, the IBM and Intel articles, Yang or Rabinovich whether taken individually or in combination with each other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments have made to each of the claims of the present application to more clearly and patentably distinguish the present invention over the prior art relied upon by the examiner.

The present invention provides an integrated storage management system and a storage management control method implemented in the system in which access computers each having an auxiliary storage are coupled to each other via a network. The integrated storage system of the present invention includes a plurality of access computers, and an integrated storage management server. According to the present invention an access computer as the write source sends an inquiry about an access computer as a write destination to be written to the integrated storage server, wherein the inquiry includes file information of a file to be written by the access computer as a write source. The integrated storage management server selects a candidate of the access computers as the write destination to be written and returns the candidate of the access computers to the access computer as the write source.

Further, according to the present invention the access computer as the write source selects, when writing the file from the access computer as the write source, an access computer to be used as the write destination to be written which has been returned as the candidate, and writes a file to the access computer as the write

17

destination thus selected as the write destination. The integrated storage management server has policy information which defines a write policy that is used when said access computers are used as an access computer as a write destination, and the integrated storage management server uses the policy information and the file information in order to select the candidate of the access computers as the write destination to be written.

Still further, according to the present invention, the policy information is extracted from policy registration messages received from the access computers used as the write destination to be written.

Thus, the present invention relates to an integrated storage management system in which computers each having an auxiliary storage are connected to each other via a network, and an access computer as an access source accesses a file in the auxiliary storage managed by another access computer as a access destination based on a policy information which indicates a access policy wherein the policy information is extracted from policy registration messages received from the access computers used as the write destination to be written.

It should be noted that the above described features of the present invention now recited in the claims regarding the extracting of policy information from policy registration messages are described on page 20, lines 4-11 of the specification of the present application.

Therefore, according to the present invention, a user who mainly uses an access computer sets the usage information of the auxiliary storage of the access computer (policy information) to an integrated storage management server. The set policy

18

information is used in order that the integrated storage management server judges which of the auxiliary storages of access computers should be used when other users access such auxiliary storages of the access computers. Accordingly, an access computer which writes or deletes a file accesses the storage of the access computer determined by the integrated storage management server based on the set policy information.

The above described features of the present invention as now more clearly recited in claims 1-4, 6-12 and 14-20 are not taught or suggested by any of the references of record, particularly Walker, Fanning, Needham, IBM reference, Intel reference, Yang reference, and Rabinovich whether taken individually or in combination with each other as suggested by the Examiner.

Walker discloses a distributed file system which is the one of functions of the distributed operating system. According to the distributed file system disclosed by Walker, a host (US: using site) can access (write/delete) a file in the storage of another host (SS: storage site), and US uses another host (CSS: current synchronization site) which manages the location of files in order to determine an access destination of US.

The above disclosure of Walker is similar to one of features of the present invention, namely a "hybrid P2P filesystem which allows each computer in a system to write or delete files in the storage of other computers. However Walker, the same as every other reference of record, does not teach or suggest the features of the present invention as now recited in the claims.

19

Particularly Walker and each of the other references of record do not teach or suggest that <u>a user who mainly uses an access computer (SS of Walker's) sets the usage information of the auxiliary storage of the access computer (policy information) to an integrated storage management server (CSS of Walker's), that the set policy information is used to permit the integrated storage management server to judge which if the storages of access computers should be used when another access computer (US of Walker's) accesses the storage of access computers, and that an access computer (US) which writes or deletes a file accesses the storage of the access computer (SS) determined by the integrated storage management server based on the set policy information</u> as recited in the claims.

Further, Walker and each of the other references of record do not teach or suggest that <u>the policy information is extracted from policy registration messages received from the access computers used as the write destination to be written</u> as recited in the claims.

The examiner has pointed out that Walker teaches policy information (synchronization policy of Walker's: §2.3.1, paragraph 1, 2) at paragraph 5 (Page 4) in this Office Action. Nevertheless, all hosts (US, SS, CSS) behave just like one host from user's view. Such is clear from the description of Walker in §1, paragraph 1 which states that "The system supports a very high degree of network transparency, i.e. it makes the network of machines appear to users and programs as a single computer; machines boundaries are completely hidden during normal operation".

20

Hence it is possible to presume that the synchronization policy of Walker is not the policy assigned to a certain host which indicates a certain user's intention, but the policy for which an administrator of the OS controls behavior of the system appropriately. Walker seems not to consider the situation such as where a certain main user uses the hosts (US, SS). Walker simply describes relations and functions of three types hosts (US, SS, CSS) for undefined users.

To the contrary, the present invention as recited in the claims considers the situation such as where a certain main user uses the host, for example, when the certain main user uses a personal computer exclusively assigned as a host that has the function of US or CS. Thus, the present invention accounts for the situation where users can recognize the functions of each computer and as such can understand that each host behaves independently to other hosts. Further, the present invention as recited in the claims allows an user to set policy for indicating how storage of the host (SS) should be used to another host (CSS) in order that the user of the host controls the storage. Therefore, the alleged policy of Walker is entirely different from that of the present invention as recited in the claims.

The Examiner has pointed out that Walker teaches three logical functions (US, SS, CSS) at §2.3.1, paragraph 2, 3 thereof. However these three logical functions as taught by Walker are used so that a system administrator can control behavior of the system appropriately. In contra-distinction, the indicated type 431 of the policy information 430 of the computer policy table 312 of Fig. 4 of the present application is used so that an user can indicate how the computer is used (for example, network

21

connection or mobile style etc.). Thus, the meaning of the three logical functions as taught by Walker's is completely different from that of the present invention as recited in the claims.

Furthermore the Examiner has alleged that Intel teaches priority of selecting a computer (Page1, Fig.2) at paragraph 9 (Page 12) in this Office Action. However, the priory in Intel is directed to selecting files to be read, and the value of the priority is based on network traffic, network topology and file revision. To the contrary, according to the present invention priority of selection 434 included in policy information 430 of the computer policy table 321 of Fig. 4 of the present application as recited in the claims is directed to selecting a storage access destination, and the value of priority is based on the intention of an user who presents the storage to other users. Thus meaning and setting of priority as per Intel are completely different from that of the present invention as recited in the claims.

The Examiner has also alleged that accessibility state in Walker at §2.3.1, paragraph 2, 3 and available space in IBM Technical Disclosure Bulletin: "Logical Data interface" corresponds to features of the present invention regarding the policy information. However, such features as taught by Walker and IBM do not correspond to total Space 432 in policy information 430 of the computer policy table 321 of Fig. 4 of the present application. As per the present invention the total available space of the auxiliary storage is offered to other users by a main user when the other users use the auxiliary storage through other access computers as stated in Claim 5. Therefore total

22

Space 432 of the present invention as recited in the claims are entirely different from available space of IBM.

Still further, Walker, Fanning, Needham, the IBM and Intel articles, Yang or Rabinovich whether taken individually or in combination with each other as suggested by the fail to teach or suggest that the policy information is extracted policy registration messages received from the access computes used as the write destination to be written as recited in the claims.

Thus, Walker, Fanning, Needham, the IBM and Intel articles, Yang or Rabinovich whether taken individually or in combination with each other as suggested by the Examiner fail to teach or suggest an access computer as the write source sends an inquiry about an access computer as a write destination to be written to the integrated storage server, wherein the inquiry includes file information of a file to be written by the access computer as a write source, and that the integrated storage management server selects a candidate of the access computers as the write destination to be written and returns the candidate of the access computers to the access computer as the write sourcethis inventions is not anticipated and not obvious from any prior arts as recited in the claims.

Further, Walker, Fanning, Needham, the IBM and Intel articles, Yang or Rabinovich whether taken individually or in combination with each other as suggested by the Examiner fail to teach or suggest that the access computer as the write source selects, when writing the file from the access computer as the write source, an access computer to be used as the write destination to be written which has been returned as

23

the candidate, and writes a file to the access computer as the write destination thus selected as the write destination and that the integrated storage management server has policy information which defines a write policy that is used when said access computers are used as an access computer as a write destination, and the integrated storage management server uses the policy information and the file information in order to select the candidate of the access computers as the write destination to be written as recited in the claims.

As per the limitation now inserted in each of the claims, the present invention is related to an integrated storage management system in which an access computer as write destination can set policy about how the use the access computer itself to be integrated storage management server. At no point is there any teaching or suggestion in any of the references of record particularly Walker, Fanning, Needham, the IBM and Intel articles, Yang and Rabinovich whether taken individually or in combination with each other as suggested by the Examiner that an access computer as write destination can set its own policy as to how the access computer itself can be used in the integrated storage management server as in the present invention. .

Therefore, the features of the present invention as now more clearly recited in the claims are not taught or suggested by Walker, Fanning, Needham, the IBM and Intel articles, Yang or Rabinovich whether taken individually or in combination with each other as suggested by the Examiner. Accordingly, reconsideration and withdrawal of the rejections of claims 1-4, 6-12 and 14-20 under 35 USC §103(a) as being

24

unpatentable over Walker when taken in combination with one or more of Fanning, Needham, the IBM and Intel articles, Yang and Rabinovich is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-20.

In view of the foregoing amendments and remarks, applicants submit that claims 1-20 are in condition for allowance. Accordingly, early allowance of claims 1-20 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (520.41303X00).

Respectfully submitted,

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25